

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

PESTKA, Sidney et al.

Serial No.: 10/088,143

Filed: February 22, 2002

For: Cytomegalovirus-Encoded IL-10  
Homolog

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) Group Art Unit: Not Yet Assigned  
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) Examiner: Not Yet Assigned  
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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In accordance with 37 CFR §§ 1.97 and 1.98, the items identified in this Information Disclosure Statement ("IDS") are brought to the attention of the Office. The items are listed on the attached form PTO-1449 and copies are enclosed for the convenience of the Examiner.

The items identified in this IDS may or may not be "material" pursuant to 37 CFR § 1.56. The submission thereof by Applicant is not to be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be material (37 CFR § 1.97(h)), or even qualifies as "prior art" under 35 USC § 102 with respect to this invention unless specifically designated by Applicant as such.

LA-242773.1

CERTIFICATE OF MAILING  
(37 C.F.R. §1.8a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

July 30, 2002  
Date of Deposit

Lena Dishakjian  
Name of Person Mailing Paper

*Lena Dishakjian*  
Signature of Person Mailing Paper

**INFORMATION DISCLOSURE STATEMENT FILING PROVISION:**

This IDS is believed to be timely in that it is being submitted under 37 CFR § 1.97(b), that is (1) within three months of the filing date of the application, which is not a continued prosecution application filed under § 1.53(d); or (2) within three months of entry of the national stage as set forth in 37 CFR § 1.491; or (3) before the mailing of a first Office action on the merits; or (4) before the mailing of a first Office action after filing a request for continued examination under § 1.114. Thus, no fee is required.

However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and charge the fee due under 37 CFR § 1.17(p) or any fees required by this filing to Lyon & Lyon's Deposit Account No. 12-2475.

Respectfully submitted,  
LYON & LYON LLP

Dated: July 29, 2002

By: \_\_\_\_\_

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**22249**

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<b>FORM PTO-1449</b>  <b>LIST OF PATENTS AND OTHER DOCUMENTS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</b>  (Use several sheets if necessary)	<b>ATTY. DOCKET NO.</b> 271/294	<b>SERIAL NO.</b> 10/088,143
	<b>APPLICANT</b> PESTKA, Sidney et al.	
	<b>FILING DATE:</b> February 22, 2002	<b>GROUP:</b>

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	AA						
	AB						
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	AD						
	AE						
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	AG						
	AH						

FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
	AI							
	AJ							
	AK							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
	AL	Andrews et al., "Infection of Dendritic Cells by Murine Cytomegalovirus Induces Functional Paralysis," Nature Immunol., Vol. 2, No. 11, (2001) pp. 1077-1084
	AM	Arrode et al., "Cross -Presentation of Human Cytomegalovirus pp65 (UL83) to CD8 <sup>+</sup> T Cells Is Regulated by Virus-Induced, Soluble-Mediator-Dependent Maturation of Dendritic Cells," J. Virol., Vol. 76, No. 1, (2002) pp. 142-150
	AN	Bazan et al., "Structural Design and Molecular Evolution of a Cytokine Receptor Superfamily," Proc. Natl. Acad. Sci. USA, Vol. 87, (1990) pp. 6934
	AO	Berman et al., "Systemic Administration of Cellular IL-10 Induces an Effective, Specific, and Long-lived Immune Response Against Established Tumors in Mice," J. Immunol., Vol. 157, (1996) pp.231
	AP	Bogdan et al., "Macrophage Deactivation by Interleukin 10," J. Exp. Med., Vol. 174, (1991) pp. 1549

<b>EXAMINER:</b>	<b>DATE CONSIDERED:</b>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant	

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AQ	Boulland et al., "Human Interleukin-10 Expression in T/Natural Killer-Cell Lymphomas," Am. J. Pathol., Vol. 153, (1998) pp. 1229-1237
AR	Britt et al., "Cytomegalovirus," (eds) Fields of Virology, Lippincott-Raven Publishers, Philadelphia, (1996) pp. 2493-2523
AS	Chee et al., "Analysis of the Protein-Coding Content of the Sequence of Human Cytomegalovirus Strain AD169" Curr. Top. Microbiol. Immunol., Vol. 154, (1990) pp. 125
AT	D'Amico et al., "Uncoupling of Inflammatory Chemokine Receptors by IL-10: Generation of Functional Decoys," Nature Immunol., Vol. 1, No. 5, (2000) pp. 387-391
AU	D'Andrea et al., "Interleukin 10 (IL-10) Inhibits Human Lymphocyte Interferon $\gamma$ -Production by Suppressing Natural Killer Cell Stimulatory Faciaotr/IL-12 Synthesis in Accessory Cells," J. Exp. Med., Vol. 178 (1993) pp. 1041
AV	de Waal et al., "Interleukin 10 (IL-10) and Viral IL-10 Strongly Reduce Antigen-Specific Human T Cell Proliferation by Diminishing the Antigen-Presenting Capacity of Monocytes Via Downregulation of Class II Major Histocompatibility Complex Expression," J. Exp. Med., Vol. 174 (1991) pp. 915
AW	Ding et al., "A Single Amino Acid Determines the Immunostimulatory Activity of Interleukin-10," J. Exp. Med, Vol. 191, (2000) pp. 213-223
AX	Dower et al., "Cytokines, Virokines and the Evolution of Immunity," Nature Immunol., Vol. 1, No. 5, (2000) pp. 367-368
AY	Ealick et al., "Three-Dimensional Structure of Recombinant Human Interferon- $\gamma$ ," Science, Vol. 252, (1991) pp. 698
AZ	El-Beik et al., "Multiple Transforming Regions of Human Cytomegalovirus DNA," J. Virol., Vol. 60, (1986) pp. 645
BA	Fleming et al., "A Homolog of Interleukin-10 Is Encoded by the Poxvirus Orf Virus," J. Virol., Vol. 71, No. 6, (1997) pp. 4857-4861
BB	Fossa et al., "Serum Levels of Cytokines and Soluble Cytokine Receptors in Patients with Metastatic Renal Cell Carcinoma or Malignant Melanoma Receiving IL-2/ Interferon- $\alpha$ Combination Therapy" Acta. Oncol., Vol. 34, (1995) pp. 599
BC	Go et al., "Interleukin 10, a Novel B Cell Stimulatory Factor: Unresponsiveness of X Chromosome-Linked Immunodeficiency B Cells" J. Exp. Med., Vol. 172, (1990) pp. 1625
BD	Goldman et al., "Modifications of Vectors pEF-BOS, pcDNA 1 and pcDNA 3 Result in Improved Convenience and Expression" Biotechniques, Vol. 21, (1996) pp. 1013
BE	Grattan et l., "Cytomegalovirus Infection Is Associated with Cardiac Allograft Rejection and Atherosclerosis" JAMA, Vol. 261, (1989) pp. 3561
BF	Halak et al., "Tumor-Induced Interleukin-10 Inhibits Type 1 Immune Response Directed at a Tumor Antigen As Well As a Non-Tumor Antigen Present at the Tumor Site" Cancer Res., Vol. 59, (1999) pp. 911-917
BG	Hiemstra et al., "Cytomegalovirus in Autoimmunity: T Cell Crossreactivity to Viral Antigen and Autoantigen Glutamic Acid Decarboxylase," PNAS, Vol. 98, No. 7, (2001) pp. 3988-3991

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BH	Hsu et al., "Expression of Interleukin-10 Activity by Epstein-Barr Virus BCRF1" Science, Vol. 250, (1990) pp. 830-832
BI	Inamdar et al., "Identification of Two Promoters Within Human Cytomegalovirus Morphologic Transforming Region II" Intervirology, Vol. 34, (1992) pp. 146
BJ	Jahan et al., "The Human Cytomegalovirus mtrII Colinear Region in Strain Tanaka is Transformation Defective" J. Virol., Vol. 63, (1989) pp. 2866
BK	Kotenko et al., "Identification and Functional Characterization of a Second Chain of the Interleukin-10 Receptor Complex," EMBO J., Vol. 16 (1997) pp. 5894-5903
BL	Kotenko et al., "The Intracellular Domain of Interferon- $\alpha$ Receptor 2c (IFN- $\alpha$ R2c) Chain is Responsible for Stat Activation," Proc. Natl. Acad. Sci. USA, Vol. 96 (1999) pp. 5007-5012
BM	Kotenko et al., "Human Cytomegalovirus Harbors Its Own Unique IL-10 Homolog (cmvIL-10)," PNAS, Vol. 97, No. 4, (2000) pp. 1695-1700
BN	Kotenko et al., "Viral IL-10 Variants," Cytokine Reference, Printed and On-Line Database Book. Ed. Joost Oppenheim and Marc Feldmann, Academic Press, New York (2001)
BO	Lehner et al., "Cytomegalovirus: From Evasion to Suppression?" Nature Immunol. Vol. 2, No. 11, (2001) pp. 993-994
BP	Liu et al., "Expression Cloning and Characterization of a Human IL-10 Receptor" J. Immunol., Vol. 152, (1994) pp. 1821-1828
BQ	Lockridge et al., "Primate Cytomegaloviruses Encode and Express an IL-10-like Protein," Virology, Vol. 268 (2000) pp. 272-280
BR	Lonnqvist et al., "Cytomegalovirus Infection Associated with and Preceding Chronic Graft-Versus-Host Disease" Transplantation, Vol. 38, (1984) pp. 465
BS	Melnick et al., "Cytomegalovirus and Atherosclerosis" Bioessays, Vol. 17, (1995) pp. 899
BT	Moore et al., "Homology of Cytokine Synthesis Inhibitory Factor (IL-10) to the Epstein-Barr Virus Gene BCRF1," Science, Vol. 248, (1990) pp. 1230-1234
BU	Moore et al., "Interleukin-10" Annu. Rev. Immunol., Vol. 11, (1993) pp. 165-190
BV	Moore et al., "Interleukin-10 and the Interleukin-10 Receptor," Annu. Rev. Immunol., Vol. 19, (2001), pp. 683-765
BW	Mori et al., "Interleukin-10 Gene Expression and Adult T-Cell Leukemia," Leuk. Lymphoma, Vol. 29, (1998) pp. 239
BX	Moutaftsi et al., "Human Cytomegalovirus Inhibits Maturation and Impairs Function of Monocyte-Derived Dendritic Cells," Blood, Vol. 99, No. 8, (2002) pp. 2913-2921
BY	Muralidhar et al., "Human Cytomegalovirus mtrII Oncoprotein Binds to p53 and Down-Regulates p53-Activated Transcription," J. Virol., Vol. 70, No. 12, (1996) pp. 8691-8700
BZ	Qin et al., "Retrovirus-Mediated Transfer of Viral IL-10 Gene Prolongs Murine Cardiac Allograft Survival" J. Exp. Med., Vol. 182, (1995) pp. 477
CA	Raftery et al., "Targeting the Function of Mature Dendritic Cells by Human Cytomegalovirus: A Multilayered Viral Defence Strategy," Immunity, Vol. 15, (2001) pp. 997-1009

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1	CB	Razzaque et al., "Localization and DNA Sequence Analysis of the Transforming Domain (mtrII) of Human Cytomegalovirus," Proc. Natl. Acad. Sci. USA, Vol. 85, (1988) pp. 5709-5713
	CC	Rosenthal et al., "Potential Oncogenicity of Human Cytomegalovirus," Molecular Aspects of Human Cytomegalovirus, Springer-Verlag, New York, (1993) pp. 412-436
	CD	Soderberg et al., "Cytomegalovirus-Induced CD13-Specific Autoimmunity- A Possible Cause of Chronic Graft-Versus-Host Disease" Transplantation, Vol. 61, (1996) pp. 600
	CE	Soh et al., "Identification and Sequence of an Accessory Factor Required for Activation of the Human Interferon- $\gamma$ Receptor" Cell, Vol. 76, (1994) pp. 793
	CF	Spencer et al., "Potent Immunosuppressive Activities of Cytomegalovirus-Encoded Interleukin-10," J. Virol., Vol. 76, No. 3, (2002) pp. 1285-1292
	CG	Suzuki et al., "Viral Interleukin 10 (IL-10), the Human Herpes Virus $\delta$ Cellular IL-10 Homologue, Induces Local Anergy to Allogeneic and Syngeneic Tumors," J. Exp. Med., Vol. 182, (1995) pp. 477-486
	CH	Swaninathan et al., "The Role of BCRF1/vIL-10 in the Life Cycle of Epstein-Barr Virus," Viroceptors, Virokines and Related Immune Modulators Encoded by DNA Viruses, ed. Grant McFadden, R.G. Landes Co., Austin, (1994) pp. 111-125
	CI	Thoreau et al., "Structural Symmetry of the Extracellular Domain of the Cytokine/Growth Hormone/Prolactin Receptor Family and Interferon Receptors revealed by Hydrophobic Cluster Analysis" FEBS Lett., Vol. 282, (1991) pp. 26
	CJ	Tortorella et al., "Viral Subversion of the Immune System," Annu. Rev. Immunol. Vol. 18, (2000), pp. 861-926
	CK	Vieira et al., "Isolation and Expression of Human Cytokine Synthesis Inhibitory Factor cDNA Clones: Homology to Epstein-Barr Virus Open reading Frame BCRF1" Proc. Natl. Acad. Sci. USA, Vol. 88, No. 4, (1991) pp. 1172
	CL	Walter et al. "Crystal Structure of Interleukin 10 Reveals an Interferon $\gamma$ -like Fold" Biochemistry, Vol. 34, (1995) pp. 12118-12125
	CM	Walter et al. "Crystal Structure of a Complex Between Interferon- $\gamma$ and its Soluble High-Affinity Receptor" Nature, Vol. 376, (1995) pp. 230
	CN	Zdanov et al., "Crystal Structure of Epstein-Barr Virus Protein BCRF1, a Homolog of Cellular Interleukin-10," J. Mol. Biol., Vol. 268, (1997) pp. 460-467
	CO	Zdanov et al., "Crystal Structure of Interleukin-10 Reveals the Functional Dimer with an Unexpected Topological Similarity to Interferon $\gamma$ ," Structure, Vol. 3, (1995) pp. 591-601
	CP	Zdanov et al., "Crystal structure of Human Interleukin-10 at 1.6 Å Resolution and a Model of a complex With Its Soluble Receptor" Protein Sci., Vol. 5, (1996) pp. 1955-1962
	CQ	Zhou et al., "Association Between Prior Cytomegalovirus Infection and the Risk of Restenosis After Coronary Atherectomy" N. Engl. J. Med., Vol. 335, (1996) pp. 624
	CR	Zur Hausen et al., "Viruses in Human Cancers" Science, Vol. 254, (1991) pp. 1167

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